

Needs to ship Sept 29th.

Work Order ID 151274

151274

Page 1

Monday, September 19, 2016 9:26:07 AM

Item ID: D3168-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Step Assembly, Low Short LH
Start Date: 9/19/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 9/28/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: dem Date: 16/09/19 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3168	B								
110	Large Fab	0.00							
110									
Large Fab	Memo	0.03							
Large Fab	1-Cut D2622-120C extrusion to 57.090" long as per Dwg D3168								
	2-Drill extrusion as per Dwg D3168 using Jig DT8680 for rivets.****(Use only 1st 6holes)****								
	3-Deburr								
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00							
Quality Control									

1 CJ 16-09-19

1 SEP 19 2016 DAS 24 9:39

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																
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Monday, September 19, 2016 9:26:07 AM

Item ID: D3168-041

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS?

Item Name: Step Assembly, Low Short LH

Start Date: 9/19/2016 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 9/28/2016 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
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Misidentified ☐	Past Due ☐				

151274

Monday, September 19, 2016 9:26:07 AM

N900040100

Setup Start *NS1*

Stop *NS2*

1

Cust Item ID:

Start Date: 9/19/2016 **Start Qty:** 1.00

Required Date: 9/28/2016 **Req'd Qty:** 1.00

1

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160 Chemical Conversion Coat per QSI005 4.1

0.00

160

0.00

HandFinish

Memo

Hand Finishing

170 QC7-Inspect Chemical Conversion Coat

0.00

170

0.00

QC

Memo

Quality Control

DAS
38
9-89

SEP 21 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coor. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Work Order ID 151274

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151274

Page 4

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180		0.00							
180	Large Fab					1	16.09.20		C
Large Fab	Memo	0.09							
Large Fab	Rivet Leg Assembly as per Dwg D3168								
	1-Bevel end for welding								
	2-Inspect for foreign object as per QSI 024								
	3-Weld end plate as per QSI 004 & Dwg D3168								
	A/R Aluminum Rod 134826								
	4- Grind end plate flush as per dwg								
190	QC5- Inspect part completeness to step on W/O	0.00							
190									
QC	Memo	0.00							
Quality Control									

DAS
9
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Monday, September 19, 2016 9:26:07 AM

Item ID: D3168-041

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Step Assembly, Low Short LH

Stop *NS2*

Start Date: 9/19/2016 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 9/28/2016 **Req'd Qty:** 1.00 ***1***

Customer:

Reference:

Approvals: _____ **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

200

Touch up alodine

0.00

200

Memo

0.00

Hand Finishing

210

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00
--	------

210

M/35418

0.01

Powdercoat

Memo

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

220

Wing Walk as per dwg QSI005 4.4 Batch 1435510.00

220

Memo

0.01

HandFinish

Hand Finishing

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
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Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

Work Order ID 151274

Monday, September 19, 2016 9:26:07 AM

151274

Page 6

Item ID: D3168-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Step Assembly, Low Short LH
Start Date: 9/19/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 9/28/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230 *230* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				1			DAS 39 9-89 SEP 21 2016
290 *290* Packaging Packaging	Identify as per dwg & Stock Location: _____ Packaging Memo	0.00 0.00		PPG		150751		50	10/09/21
300 *300* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.02							DAS 21 9-89 SEP 22 2016
									DAS 21 9-89 SEP 21 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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OTHER :																					

Picklist Print

Monday, September 19, 2016 9:26:06 AM

Page 1

Work Order ID: 151274

151274

Parent Item: D3168-041

D3168-041

Parent Item Name: Step Assembly, Low Short LH

Start Date: 9/19/2016

Required Date: 9/28/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 16.01.14 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3067-1 *D3067-1* End Plate		Manufactured	No			180	Each	103.0000	1	1		SEP 20 2016	DAS 24 9-89

Location	Loc Qty	Loc Code
WA003	103	
149150	13	
150439	50	
150703	40	

D2622-120C *D2622-120C* Step Extrusion		Manufactured	No			130	Each	26.5000	0.5	1		SEP 20 2016	DAS 24 9-89
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Location	Loc Qty	Loc Code
WA003	26.5	
141814	26.5	

D3067-1 *D3067-1* End Plate		Manufactured	No			130	Each	103.0000	2	2		SEP 20 2016	DAS 24 9-89
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Location	Loc Qty	Loc Code
WA003	103	
149150	13	
150439	50	
150703	40	

D3077-1 *D3077-1* Step Leg		Manufactured	No			180	Each	1.0000	2	2		SEP 20 2016	DAS 24 9-89
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Location	Loc Qty	Loc Code
WA003	1	
106634	1	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																											
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Picklist Print

Monday, September 19, 2016 9:26:06 AM

Page 2

Work Order ID: 151274

151274

Parent Item: D3168-041

D3168-041

Parent Item Name: Step Assembly, Low Short LH

Start Date: 9/19/2016

Required Date: 9/28/2016

Start Qty: 1.00

Required Qty: 1.00

D3170-1 Manufactured No

180

Each

4.0000

2

2

SEP 20 2016

DAS
24
9-89

D3170-1

Spacer

**

Location

Loc Qty

Loc Code

WA003

4

120606

4

D3219-5 Manufactured No

180

Each

33.0000

2

2

SEP 20 2016

DAS
24
9-89

D3219-5

Plate

**

Location

Loc Qty

Loc Code

WA003

33

142224

2

146687

31

MS20600-AD4W4 Purchased No

180

Each

2,316.000

12

12

SEP 20 2016

DAS
24
9-89

MS20600-AD4W4

Rivet

**

Location

Loc Qty

Loc Code

ST308

102

M133990

102

WA003

2214

M134955

214

M135442

2000

12

DQA: _____ Date: _____



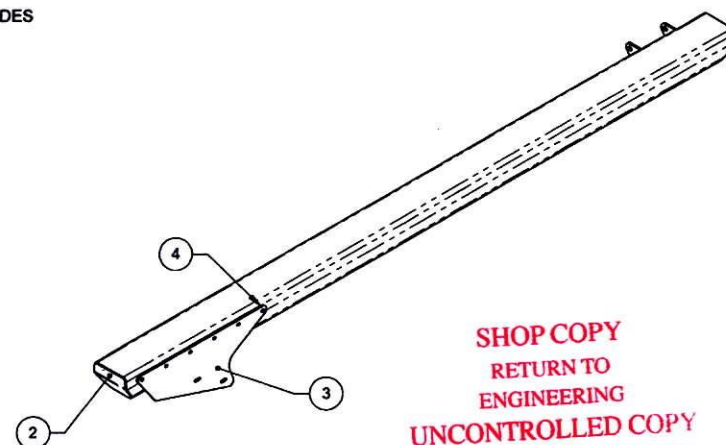
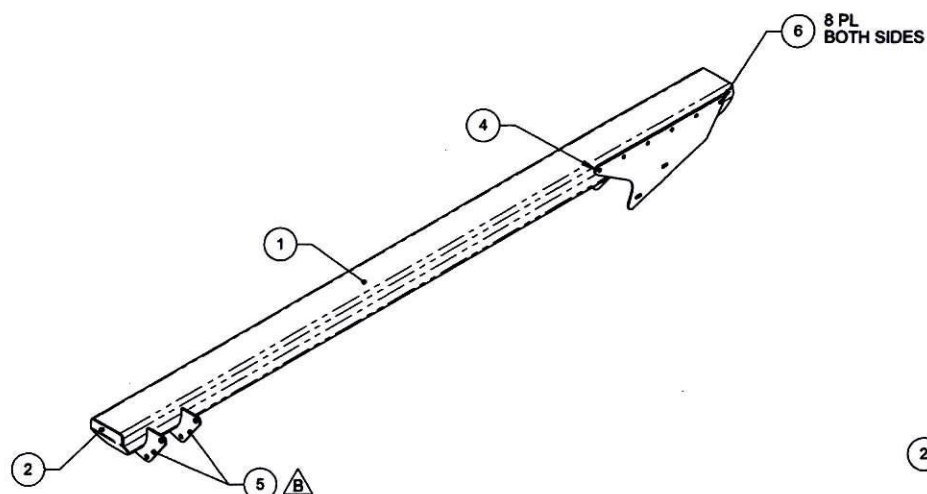
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coor. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																	
Description Work Order Deviation		Disposition																			
				Completed By																	
				Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																
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Past Expiry Date ☐	Manufacturing Process ☐																				
Misidentified ☐	Past Due ☐	OTHER : _____																			

ITEM	QTY -041	P/N	DESCRIPTION
	X	D3168-041	STEP ASSEMBLY, LOW SHORT (LH)
1	1	D2622-058	STEP EXTRUSION
2	2	D3067-1	END PLATE
3	2	D3077-1	STEP LEG
4	2	D3170-1	SPACER
5	2	D3219-5	PLATE
6	12	MS20600AD4W4	RIVET, BLIND



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WITHOUT NOTICE
WORK ORDER
NO. 151274
Jem 10/09/19

D3168-041 STEP ASSEMBLY, LOW SHORT (LH)

NOTES:

- 1) MATERIAL: NONE
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER QSI 044
- 7) WEIGHT: 5.03 lbs
- 8) WELD PER DART QSI 004
- 9) APPLY BLACK ANTI-SKID PAINT ON THE TOP SURFACE TO THE BOTTOM OF THE TOP RADII AS SHOWN PER DART QSI 005 4.4

RELEASED
2016-03-14
EN 16-456

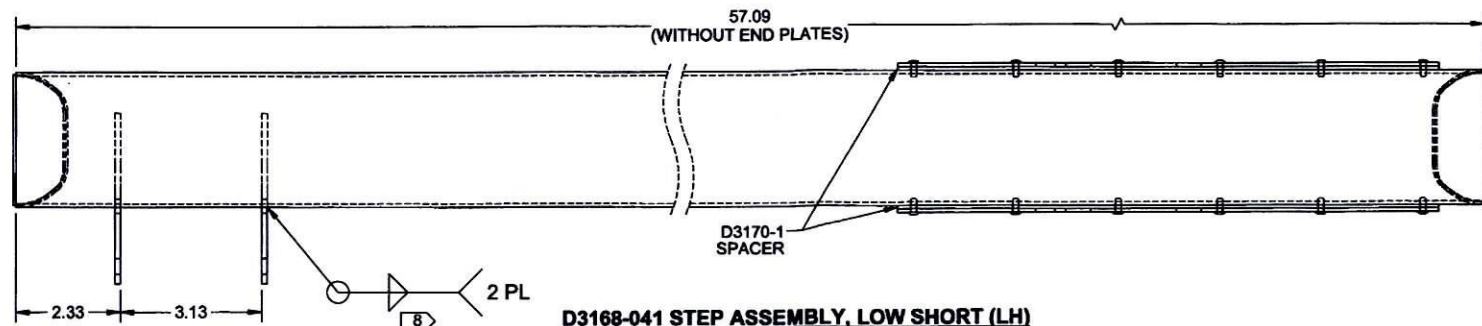
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A	NEW ISSUE	CP	02.09.11
REV.	DESCRIPTION	BY	DATE
DESIGN	CP		
DRAWN	AJS		
CHECKED	ML		
MFG. APPR.	JLM		
APPROVED	WM		
DE APPR.	DS		
DATE	15.11.10		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

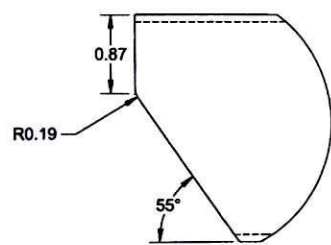
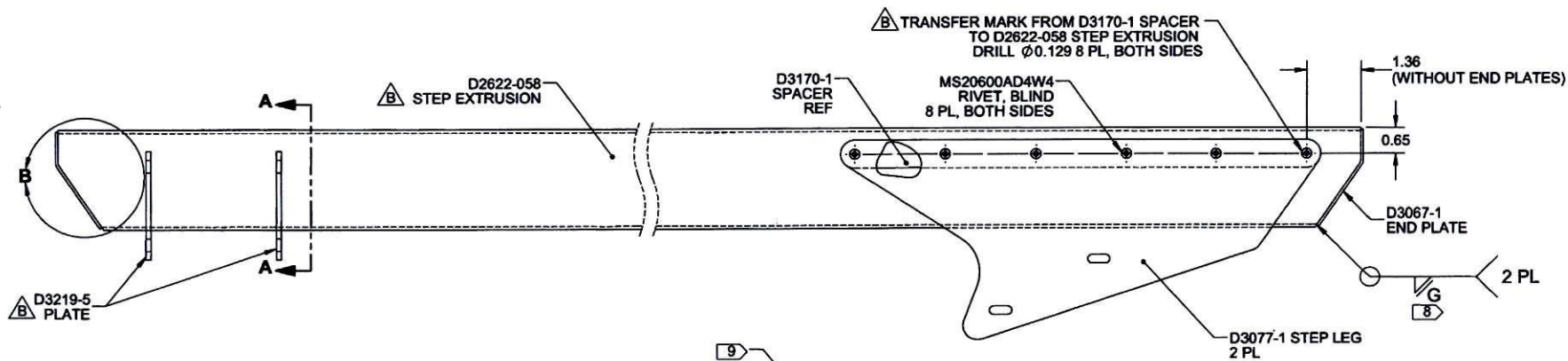
DRAWING NO. D3168
REV. B
SHEET 1 OF 4

TITLE
STEP ASSEMBLY, LOW SHORT
SCALE
NTS

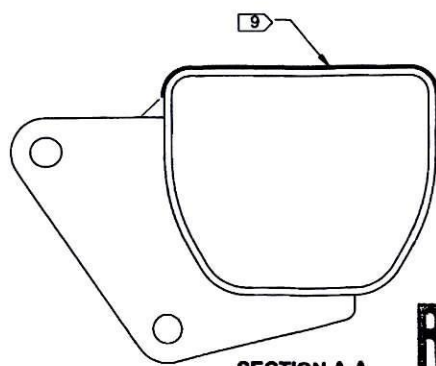
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D3168-041 STEP ASSEMBLY, LOW SHORT (LH)



DETAIL B
2 PL, SCALE 2X
D3067-1 END PLATE NOT SHOWN



SECTION A-A

RELEASED
2016-03-14

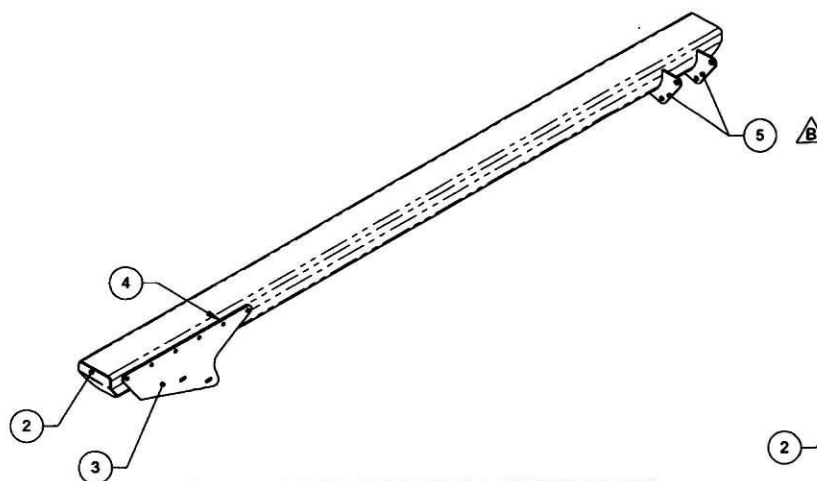
APPROVED

DESIGN	CP
DRAWN	AJS
CHECKED	ML
MFG. APPR.	JLM
APPROVED	WM
DE APPR.	DS
DATE	15.11.10

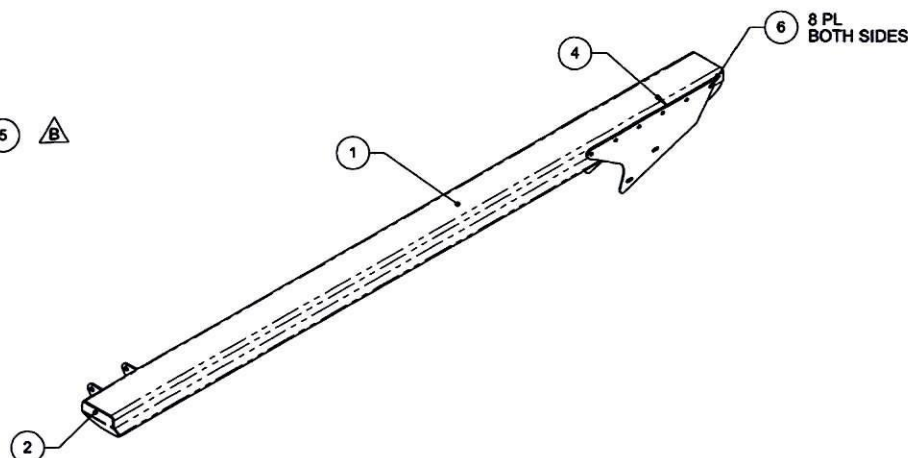
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D3168	REV. B
TITLE STEP ASSEMBLY, LOW SHORT	SCALE NTS
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SHEET 2 OF 4

ITEM	QTY -042	P/N	DESCRIPTION
	X	D3168-042	STEP ASSEMBLY, LOW SHORT (RH)
1	1	D2622-058	STEP EXTRUSION
2	2	D3067-1	END PLATE
3	2	D3077-1	STEP LEG
4	2	D3170-1	SPACER
5	2	D3219-5	PLATE
6	12	MS20600AD4W4	RIVET, BLIND



D3168-042 STEP ASSEMBLY, LOW SHORT (RH)



NOTES:

- 1) MATERIAL: NONE
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY PER QSI 044
- 7) WEIGHT: 5.03 lbs
- 8) WELD PER DART QSI 004
- 9) APPLY BLACK ANTI-SKID PAINT ON THE TOP SURFACE TO THE BOTTOM
OF THE TOP RADII AS SHOWN PER DART QSI 005 4.4

RELEASED
2016-03-14

APPROVED

DESIGN	CP
DRAWN	AJS
CHECKED	ML
MFG. APPR.	JLM
APPROVED	WM
DE APPR.	DS
DATE	15.11.10

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D3168	REV. B SHEET 3 OF 4
TITLE STEP ASSEMBLY, LOW SHORT	SCALE NTS
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